

In the claims:

1. (currently amended) A network node for an optical communications shared protection scheme network, the network node being arranged to provide optical signals to at least two transmission paths, the node comprising a link aggregation router having at least two ports, a first port connected to a working transmission path, and a second port connected to a shared protection path, the link aggregation router being arranged to group physical link segments of the same media type and speed and treat them as part of a single logical link segment so as to provide an aggregated link, and if a link fails, to dynamically reassign flows mapped to that failed link to the remaining links of the aggregated link, such that wherein in failure-free operation both the working transmission path and the shared protection path carry link aggregated traffic simultaneously without duplication of that traffic on the two routes.
2. (original) A network node as claimed in claim 1, wherein said shared protection path is a ring, said second port being connected to said ring via an optical switching device arranged to switch signals transmitted to and from the second port in either direction around the ring.
3. (currently amended) An optical network comprising a plurality of network nodes, each network node being arranged to provide optical signals to at least two transmission paths, the node comprising a link aggregation router having at least two ports, a first port connected to a working transmission path, and a second port connected to a shared protection path, the link aggregation router being arranged to group physical link segments of the same media type and speed and treat them as part of a single logical link segment so as to provide an aggregated link, and if a link fails, to dynamically reassign flows mapped to that failed link to the remaining links of the aggregated link, such that wherein in failure-free operation both the working transmission path and the shared protection path carry link aggregated traffic simultaneously without duplication of that traffic on the two routes.
4. (currently amended) A method of transmitting packet traffic between first and second network nodes in a shared protection optical transmission network, the method comprising defining first and second traffic paths between said nodes, said first path being a

shared protection path, and said second path being a working transmission path, and allocating traffic along said paths utilising link aggregation to group physical link segments of the same media type and speed and treat them as part of a single logical link segment so as to provide an aggregated link, and if a link fails, to dynamically reassign flows mapped to that failed link to the remaining links of the aggregated link, such that in failure-free operation both the working transmission path and the shared protection path carry link aggregated traffic simultaneously without duplication of that traffic on the two routes.

5. (original) A method as claimed in claim 4, wherein said shared protection scheme is an optical shared protection ring, and wherein in the event of a failure or degradation of said protection path, the protect path is switched to be the other way around the ring.

6. (original) A method as claimed in claim 4, wherein a failure in a transmission path is perceived by the nodes as a reduction in capacity by said nodes.

7. (cancelled)

8. (cancelled)